

CLAIMS

What is claimed is:

1. A loader operable to deliver product to a process line, the loader
5 comprising:
a buffer section operable to support a product;
a transfer section operable to receive the product from the buffer section;
and
one of a plurality of interchangeable nose sections coupled to the transfer
10 section to receive the product and deliver the product to a process line.
2. The loader of claim 1, wherein the process line is a gathering line including
a saddle stitcher and wherein the nose section includes a pocket operable to deliver the
product to the gathering line.
- 15 3. The loader of claim 1, wherein the process line is a binding line including a
perfect binder and wherein the nose is a binder nose operable to deliver product to a
gathering raceway.
- 20 4. The loader of claim 1, wherein the process line is an offline mailer and
wherein the nose includes a registration portion.
5. The loader of claim 1, wherein the process line is an offline mailer and
wherein the nose section includes a printer.
- 25 6. The loader of claim 1, wherein the buffer section includes a substantially
horizontal platform.
7. The loader of claim 6, wherein the platform is sized to receive at least one
30 log of product.
8. The loader of claim 1, wherein the buffer section includes a waterfall
portion operable to transfer the product from a first orientation to a second orientation.

9. The loader of claim 8, wherein the product includes an edge and a face and when in the first orientation, the product is supported on the edge and when in the second orientation, the product is supported substantially on the face.

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10. The loader of claim 1, wherein the transfer section includes a delivery section operable to deliver product to the nose section.

10 11. The loader of claim 10, wherein the delivery section at least partially supports the nose section.

12. The loader of claim 1, further comprising a support post adjacent the process line, the post including a hitch location, and the loader being alignable with the hitch location to position the nose section such that the nose section delivers product to the process line.

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13. The loader of claim 12, wherein the post includes connections to a production support supply.

20 14. A process line operable to assemble a plurality of printed products, the process line comprising:

a support post;

a loader operable to deliver printed product to the process line, the loader coupled to the post; and

25 a conveyor positioned to receive and transport the printed product from the loader.

15 15. The process line of claim 14, wherein the loader includes a buffer section operable to support a printed product, a transfer section operable to receive the printed product from the buffer section, and one of a plurality of interchangeable nose sections coupled to the transfer section to receive the printed product and deliver it to the process line.

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16. The process line of claim 15, wherein the process line is a gathering line including a saddle stitcher, wherein the nose section includes a pocket, and wherein the conveyor is a gathering chain.

5 17. The process line of claim 15, wherein the process line is a binding line, the nose is a binder nose, and the conveyor is a gathering raceway.

18. The process line of claim 15, wherein the process line is an offline mailer, wherein the nose includes a registration portion and a printing portion.

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19. The process line of claim 15, wherein the transfer section includes a delivery section operable to deliver the printed product to the nose section, and wherein the delivery section at least partially supports the nose section.

15 20. The process line of claim 14, wherein the post includes a hitch location and wherein the loader is alignable with the hitch location to position the loader relative to the process line.

21. The process line of claim 14, wherein the post includes connections to a
20 production support supply.

22. The process line of claim 21, wherein the production support supply includes at least one of air, vacuum, power and communications.

25 23. A process line comprising:
a conveyor;
a plurality of loaders operable to deliver product to the conveyor; and
a support post positioned adjacent the conveyor and operable to selectively
receive the plurality of loaders and align each loader with respect to the conveyor.

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24. The process line of claim 23, wherein each loader includes a buffer section operable to support a quantity of product, a transfer section operable to receive product from the buffer section and individualize the product, and one of a plurality of interchangeable nose sections receiving the single product and delivering it to the
5 conveyor.

25. The process line of claim 23, wherein the post includes connections to a production support supply.

10 26. The process line of claim 25, wherein the production support supply includes at least one of air, vacuum, power and communications.

27. A method of arranging a process line including a conveyor operable to move product, the method comprising:
15 positioning a support post adjacent a conveyor line; and
coupling a loader to the post such that the loader is operable to deliver product to the conveyor.

28. The method of claim 27, wherein the post includes a hitch location and the
20 step of coupling the loader to the post includes connecting the loader to the hitch location to thereby align the loader to the conveyor.

29. The method of claim 27, wherein the post includes a production supply connection supplying one of pressurized air, vacuum, power and communications to the
25 loader.

30. The method of claim 27, wherein the post extends substantially the length of the conveyor.

30 31. The method of claim 27, wherein the post includes at least two supply connections, each supply connection providing at least one of pressurized air, vacuum, power and communications to one of the loaders.

32. A support post positioned adjacent a conveyor of a finishing line, the support post comprising:

an alignment member positioned a distance from a conveyor, the alignment member operable to engage and align a loader relative to the conveyor.

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33. The support post of claim 32, wherein the alignment member includes a hitch location that engages and positions the loader relative to the conveyor line.

34. The support post of claim 32, further comprising a second hitch location, the second hitch location spaced apart from the hitch location and operable to engage and position a second loader a distance from the conveyor line.

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35. The support post of claim 32, wherein the alignment member aligns a plurality of loaders such that the loaders are operable to deliver product to the conveyor line.

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36. A support post positioned adjacent a conveyor of a finishing line, the support post comprising:

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an alignment member operable to engage a loader;
a production supply line adjacent the alignment member and operable to provide at least one of pressurized air, vacuum, power and communications to a loader engaged by the alignment member.

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37. The support post of claim 36, wherein the alignment member includes a substantially hollow portion and the production supply line extends at least partially within the hollow portion.

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38. The support post of claim 36, further comprising a second production supply line and a third production supply line, wherein the first production supply line delivers pressurized air to the loader, the second production supply line delivers vacuum to the loader, and the third production supply line delivers power and communications to the loader.

39. The support post of claim 38, wherein the alignment member is operable to align a second loader, the second loader receiving pressurized air from the first production supply line, vacuum from the second production supply line, and power and communications from the third production supply line.